Floating Joint

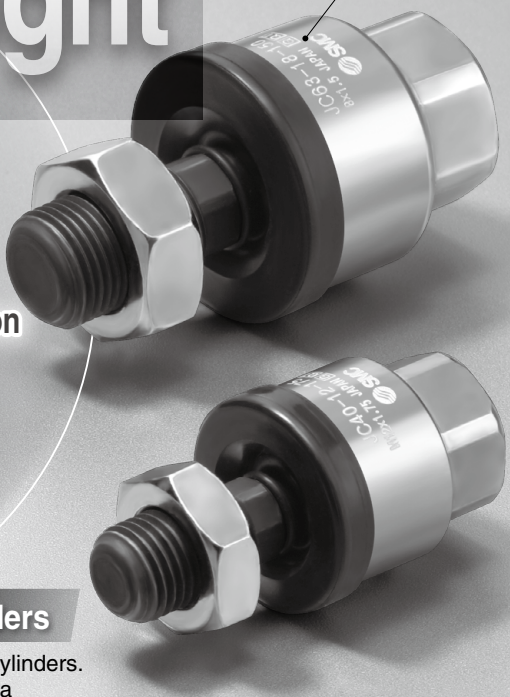
JC Series

Light Weight Type for Light Load 20, 30, 40, 63

Light weight

Aluminum case

RoHS



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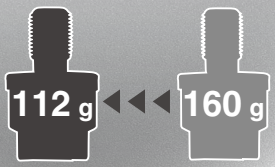
With the aluminum case

30% Weight reduction

∗Compared to the current model JA40

48 g lighter



JC40 JA40

Product suitable for air cylinders

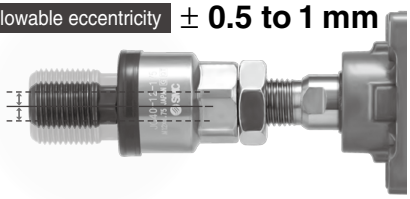
- Light weight mitigates lateral loads to air cylinders.
- Maximum tensile force equivalent to 1 MPa

Floating joint compensates for any misalignment between the work piece and the air cylinder.

Interchangeable mounting with the current JA series

Rotating angle ± 5°

Allowable eccentricity ± 0.5 to 1 mm



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Technical Data

Floating Joint
Light Weight Type for Light Load
JC Series

RoHS

Model/Specifications

Model	Applicable cylinder bore size (mm)	Applicable cylinder nominal thread size	Maximum operating tensile and compressive force (N) Basic type	Allowable eccentricity (Umm)	Rotating angle
Standard/Thread nominal size					
JC20-8-125	20	M8 x 1.25	300	0.5	± 5°
JC30-10-125	25/32	M10 x 1.25	800	0.5	
JC40-14-150	40	M14 x 1.5	1250	0.75	
JC63-18-150	50/63	M18 x 1.5	3100	1	
Semi-standard/Thread nominal size					
JC20-8-100	20	M8 x 1	300	0.5	± 5°
JC25-10-150	25	M10 x 1.5	800	0.5	
JC32-10-100	32	M10 x 1	800	0.5	
JC40-12-125	32/40	M12 x 1.25	1250	0.75	
JC40-12-150	40	M12 x 1.5	1250	0.75	
JC40-12-175	32/40	M12 x 1.75	1250	0.75	
JC50-16-150	50	M16 x 1.5	3100	1	
JC63-16-200	50/63	M16 x 2	3100	1	

How to Order

JC [40] – [14-150]

Applicable cylinder bore size

Model	Symbol	Applicable cylinder bore size (mm)
Standard type	**20**	20
	30	25/32
	40	40
	63	50/63

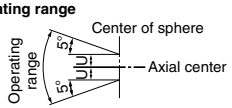
Thread nominal size (Standard)

Thread nominal size	Applicable cylinder nominal thread size
8-125	M8 x 1.25
10-125	M10 x 1.25
14-150	M14 x 1.5
18-150	M18 x 1.5

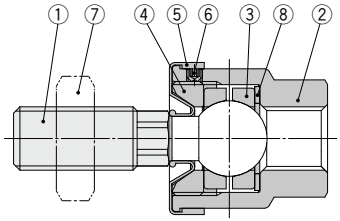
Specifications

Operating pressure	Pneumatic cylinder: 1 MPa or less
Mounting	Basic type
Operating temperature	–10 to 70°C

Operating range



Construction



No.	Description	Material	Note
1	**Stud**	Steel	Manganese phosphate
2	**Case**	Aluminum	Chromated
3	**Ring**	Steel	
4	**Cap**	Steel	Black zinc chromated
5	**Dust cover**	Synthetic rubber	
6	**Set screw**	Steel	Zinc chromated
7	**Rod end nut**	Steel	Zinc chromated
8	**Washer**	Steel	

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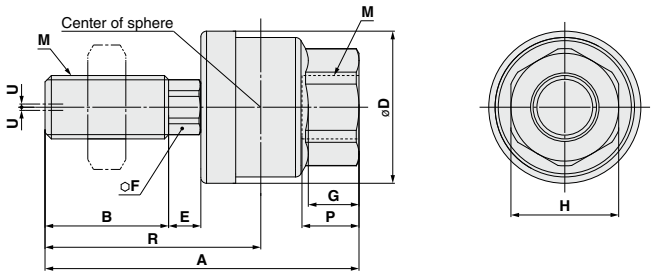
Dimensions

JC20 to 63



Standard type Pneumatic: to 1 MPa (mm)

Applicable cylinder bore size	Model	M		A	B	D	E	F	G	H	Center of sphere R	Maximum thread depth P	Allowable eccentricity U	Maximum operating tensile and compressive force N	Weight kg
		Nominal size	Pitch												
20	**JC20-8-125**	8	1.25	44	17.5	21	4.5	7	7	13	30.5	8	0.5	300	0.03
25, 32	**JC30-10-125**	10	1.25	49.5	19.5	24	5	8	8	17	34	9	0.5	800	0.05
40	**JC40-14-150**	14	1.5	60	20	31	6	11	11	22	38	13	0.75	1250	0.12
50, 63	**JC63-18-150**	18	1.5	74.5	25	41	7.5	14	13.5	27	47.5	15	1	3100	0.23

Semi-standard type Pneumatic: to 1 MPa (mm)

Applicable cylinder bore size	Model	M		A	B	D	E	F	G	H	Center of sphere R	Maximum thread depth P	Allowable eccentricity U	Maximum operating tensile and compressive force N	Weight kg
		Nominal size	Pitch												
20	**JC20-8-100**	8	1	44	17.5	21	4.5	7	7	13	30.5	8	0.5	300	0.03
25	**JC25-10-150**	10	1.5	49.5	19.5	24	5	8	8	17	34	9	0.5	800	0.05
32	**JC32-10-100**	10	1	49.5	19.5	24	5	8	8	17	34	9	0.5	800	0.05
32, 40	**JC40-12-125**	12	1.25	60	20	31	6	11	11	22	38	13	0.75	1250	0.11
40	**JC40-12-150**	12	1.5	60	20	31	6	11	11	22	38	13	0.75	1250	0.11
32, 40	**JC40-12-175**	12	1.75	60	20	31	6	11	11	22	38	13	0.75	1250	0.11
50	**JC50-16-150**	16	1.5	71.5	22	41	7.5	14	13.5	27	44.5	15	1	3100	0.22
50, 63	**JC63-16-200**	16	2	71.5	22	41	7.5	14	13.5	27	44.5	15	1	3100	0.22

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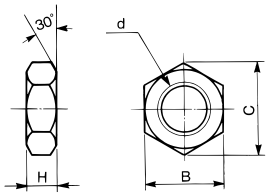
Technical Data

Dimensions of Accessories

Rod end nut



(mm)

Model	Order number	d: Thread nominal size	H	B	C
JC20-8-100	DA00207	M8 x 1	5	13	15
JC20-8-125	DA00169	M8 x 1.25	5	13	15
JC32-10-100	DA00141	M10 x 1	6	17	19.6
JC30-10-125	DA00142	M10 x 1.25	6	17	19.6
JC25-10-150	DA00140	M10 x 1.5	6	17	19.6
JC40-12-125	DA00145	M12 x 1.25	7	19	21.9
JC40-12-150	DA00146	M12 x 1.5	7	19	21.9
JC40-12-175	DA00143	M12 x 1.75	7	19	21.9
JC40-14-150	DA00148	M14 x 1.5	8	22	25.4
JC50-16-150	DA00151	M16 x 1.5	10	24	27.7
JC63-16-200	DA00150	M16 x 2	10	24	27.7
JC63-18-150	DA00153	M18 x 1.5	11	27	31.2

Spare parts

- **Rod end nut**
  The basic type has one rod end nut attached, it is possible to order additional pieces by the above order numbers.

- **Dust cover**
  When the dust cover is damaged and deteriorated, order with the part number as shown below.

Part no. for dust cover	Applicable model
P215215	JC20
P215225	JC25, JC30, JC32
P215235	JC40
P215245	JC50, JC63

Specific Product Precautions

Be sure to read this before handling the products. Refer to back page 50 for Safety Instructions and pages 3 to 7 for Actuator Precautions.

Mounting

⚠Warning

1. To screw the male threads of the rod into the female threads of the socket or the case, make sure that it does not bottom out.

If the floating joint is used with its rod bottomed out, the stud will not be able to float, causing damage.
For the screw-in depth of the female threads, refer to the dimensions (page 1139). As a rule, after the rod bottoms out, back off 1 to 2 turns.

2. The dust cover may stick to the stud. Move the dust cover at the base of the stud with fingers, or twist the stud right and left gently to free them.

And when screwing stud or socket, or case in the driven object, make sure to screw them in the state that dust cover has been removed from the case. If screwing without removing dust cover, dust cover might be broken.

3. To use a floating joint to connect the cylinder rod to a driven body, secure it in place by applying a torque that is appropriate for the thread size. Also, if there is a risk of loosening during operation, take measures to prevent loosening, such as using a locking pin or thread adhesive.

In the event that the connected portion becomes loose, the driven body might lose control or fall off, leading to equipment damage or injury to personnel.

4. This product is dedicated to the linear motion. The threaded portion can be rotated, but this product is not a fitting designed for rotational axis. So, do not use for rotational applications.

5. Use the product at 25% or less of the allowable kinetic energy of the cylinder. When a driven object is stopped, be sure to prevent the impact force of the object being transferred to the product by adding the cushion mechanism of a cylinder or other cushioning devices such as a shock absorber. Otherwise, the impact force may exceed the maximum tensile and compressive force of the product, causing breakage.

Maintenance

⚠Warning

1. Do not reuse if disassembled.

High strength adhesive is applied to the portion of the connection that is threaded to prevent it from loosening, and it must not be disassembled. If it is forcefully disassembled, it could lead to damage.